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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,799	06/23/2006	Ben John Halford	MARK6010	1534

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YOUNG LAW FIRM, P.C.

ALAN W. YOUNG

4370 ALPINE ROAD

SUITE 106

PORTOLA VALLEY, CA 94028

EXAMINER

TOLAN, EDWARD THOMAS

ART UNIT

PAPER NUMBER

3725

MAIL DATE

DELIVERY MODE

02/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/596,799		HALFORD, BEN JOHN	
	Examiner		Art Unit	
	EDWARD TOLAN		3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8-21-2006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,5-7,10-12 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Dunn (3,834,087). Dunn discloses a tooling system (11) comprising a plurality of elements (14) that are loose and capable of vertical movement prior to bolster (12) locking the elements within the bolster in a closed position where the elements contact each other (figure 2). An element contacting face of a pressure screw (39) or a contact pad face (45) supplies localized pressure when tightened by the pressure screws (column 4, lines 45-60). The bolster (12) is substantially rectangular in plan view with adjacent bolster sides (33,34,35,36). Regarding claim 7, notches (38) are provided in bolster (33) to accommodate a corresponding shape of the elements (14). Two sets of bolsters are shown in figure 1 and are modular in design for attachment to the machining center. Regarding claim 15, the bolster means is pad (45) and the means for securing are screws (39).

Claims 1-6 and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Halford (WO 02/064308). Halford discloses a tooling system (15) comprising a plurality of elements (18) that are loose and capable of vertical movement (figs. 6 and 7 and page 9, lines 3-5) in an open configuration and enclosed within a bolster (fig. 5) in a

Art Unit: 3725

closed position where the elements contact each other. The bolster is substantially rectangular in plan view with adjacent bolster sides (33,34,35,36). Halford discloses bolster (support) means (31-38) for moving elements (41-48). Halford discloses sets of bolsters in modular design (figure 12). A rectangular (fig. 5) or tiled array (figs. 8 and 9) is a tessellate or mosaic pattern.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-9 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halford (WO 02/064308) in view of Meintrup et al. (5,988,618). Halford does not disclose serrated bolster means and sensing means. Meintrup teaches wedge shaped control surfaces (28,32, figure 12) and gearing (32,10, figure 13) that act as teeth to clamp down (column 8, lines 33-37) elements (3) within a bolster (1,1",1"). Meintrup teaches a guide rail (10) and a cross rail bolster (5) having a contact pad (col. 5, lines 43-45) for contacting the elements. Meintrup teaches distance sensing (27). It would have been obvious to one skilled in the art at the time of invention to provide the bolster of Halford with toothed members as taught by Meintrup in order to tighten the array for machining. The skilled artisan would have been motivated to apply serrations to individual elements or to an entire array and bolster depending upon space

Art Unit: 3725

requirements for the machining center and to provide sensing means for positioning of the array.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Halford (WO 02/064308) in view of Barnacle (4,187,751). Halford does not disclose vibrating. Barnacle teaches that it is known to vibrate an array to bottom elements in the array (column 12, lines 42-45). It would have been obvious to the skilled artisan at the time of invention to provide vibration to the bolster of Halford as taught by Barnacle in order to settle the elements for machining.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication should be directed to Ed Tolan whose telephone number is 571-272-4525. FAX communications should be sent to 571-273-8300.

/Edward Tolan/

Primary Examiner, Art Unit 3725